DOCUMENT RESUME

ED 374 557 EA 026 135

AUTHOR Wilson, Bruce; And Others

TITLE Local Variation in Response to State Reform of High School Graduation Requirements.

INSTITUTION Research for Better Schools, Inc., Philadelphia, Pa.

SPONS AGENCY Office of Educational Research and Improvement (ED), Washington, DC.
PUB DATE Mar 89
NOTE 40p.
PUB TYPE Reports - Research/Technical (143)

EDRS PRICE MF01/PC02 Plus Postage.
DESCRIPTORS *Curriculum Development; Educational Change; *Graduation Requirements; High Schools; Local Government; *Resistance to Change; *School Restructuring; *State Curriculum Guides; *State Standards
IDENTIFIERS *Maryland

ABSTRACT

A common way to control curriculum at the state level has been to implement changes in high school graduation requirements. This paper documents the variation in responses across five diverse high schools in Maryland, as the schools implemented new high school graduation requirements mandated by the State Board of Education. In 1985, the board mandated two high school diplomas--the regular high school diploma and an advanced diploma, or Certificate of Merit. As part of a larger longitudinal study, this paper presents findings derived from: (1) in-depth interviews with students, teachers, counselors, and building administrators; and (2) analysis of individual student transcript records. Findings show that the five schools framed the new graduation requirements differently; interview participants construed the changes as having unique meaning for their particular school, its faculty and students, its organizational structures, and its departmental resources and curricula. The data suggest that challenging responses to state-initiated mandates flourish in the local schools and that perhaps decisions about what constitutes "improvement" are best reserved for those who best know and understand the local context. Five tables are included. (LMI)

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Bruce Wilson

Research for Better Schools

Gretchen B. Rossman

University of Massachusetts

Lynne Adduci

Research for Better Schools

March 1989

The preparation of this paper was partly supported by funds from the U. S. Department of Education, Office of Educational Research and Improvement (OERI). The opinions expressed do not necessarily reflect the position of OERI, and no official endorsement should be inferred. This draft is being distributed on a restricted basis to obtain suggestions for revision and should not be circulated further without the permission of Research for Better Schools, Inc. This paper was presented at the Annual Meeting of the American Educational Research Association, San Francisco, CA, March 1989.

Local Variation in Response to State Reform of High School Graduation Requirements

The current wave of reform in education has placed the issue of educational standards and outcomes at the forefront of public debate. As a consequence, a number of policies have been adopted in efforts to improve student learning. Leadership in this movement has often been at the state level, with state legislatures and state boards of education initiating important changes focusing on students, teachers and administrators. One of the most widespread reforms has been an effort to strengthen the curriculum. A common way to control the curriculum at the state level has been to regulate course offerings and course taking patterns (Clune, 1989). This has been accomplished primarily through the alteration of high school graduation requirements. Since the introduction of critical reports on the state of secondary education in America (National Commission on Excellence, 1983; Boyer, 1983), 45 states have implemented new requirements (Clune, 1989). What is not well understood is the local response to these state-mandated reforms. This paper documents the variation in response across five high schools in a single state, as the schools have begun to implement new high school graduation requirements mandated by the state board of education.

This research is heavily influenced by the perspective that implementation is not uniform across schools, and, indeed, the most interesting story is local variability and how that variability meets local needs (McLaughlin, 1987). As one analyst noted, only about ten percent of any desired action is accounted for when a preferred strategy (e.g.

increased course requirements for graduation) has been identified; the remainder is accounted for through implementation (Allison, 1971). Thus, the key to understanding the impact of a state reform such as increased high school graduation requirements is to observe how different school systems behave over time. A backward mapping strategy is being used to study this phenomenon (Elmore, 1980). This strategy questions the predominant policy paradigm where it is assumed that policy makers control the organizational, political, and technological processes impacting implementation. Furthermore, it questions whether explicit policy directives, clear statements of administrative responsibilities, and well-defined outcomes outlined by the policymaker will increase the probability that the policy will be successfully implemented. This research strategy focuses on behaviors at the lowest level of the implementation process (i.e. the behavior of students, teachers, and administrators in schools). It is a bottom-up rather than a top-down perspective that assumes the closer one is to the policy activity, the greater is one's ability to influence it.

The Maryland State Context

The setting for this research is the state of Maryland which has recently instituted new graduation requirements. In 1982, the state superintendent established the Maryland Commission on Secondary Education with the mission to examine critically the philosophy, principles, standards and programs which provide direction for the state's public high schools. The Commission prepared five reports that address the full range of services in high schools. These reports include:

- graduation requirements
- curriculum
- instruction/instructional support services
- student services and activities
- school administration/climate

The broad scope of this effort was to push the reform beyond a simple numbers game of counting the kind or number of credits taken. Rather, the Commission was designed to encourage local systems to re-examine their entire program.

The first of the Commission reports, Graduation Requirements, was enacted into law in June of 1985 with implementation to begin by September of that same year. This study has focused on the implementation of the June 1985 bylaw.

Maryland's new requirements, effective in school year 1985-86 for the class of 1989 and subsequent classes, include changes in course requirements for the diploma, two additional certificates, elimination of credit toward graduation by examination, and stricter alternative enrollment choices. A comparison of the new state requirements and the previous ones is provided in Table 1. The new Maryland high school diploma stipulates one additional credit in mathematics as well as one credit in a fine arts course (visual arts, music, dance, or theatre) and one in a vocationally-oriented course. This latter requirement was broadly defined to include courses in computers, home economics, industrial arts, and vocational education.

Table 1 about here

An additional unique feature of the requirements is the Certificate of Merit (CM) option. This option stipulates additional credits (two in a foreign language, a third credit in science), a minimal grade point average of 2.6, and the requirement that 12 of the 20 credits are from advanced level courses. What is unique about this option is that each department -- not just the academic ones -- must select and offer advanced courses that satisfy the CM guidelines. The local system has the responsibility of identifying advanced courses within the guidelines provided by the bylaws.

Changes have also been made in alternatives to the four-year enrollment requirement. Graduation in less than four years has been eliminated and job entry training no longer counts as an alternative to four-year enrollment.

Study Design

The data presented in this paper represent just part of a much larger longitudinal effort to track the implementation of this policy initiative over a four year period. This larger study has five key data collection components, however the scope of this paper is limited to the first two:

- In-depth interviews with students, teachers, counselors, and building administrators to document the effects of the new requirements from their different school-based perspectives.
- An analysis of individual student transcript records to describe course taking patterns.
- A review of master schedules and course catalogues to document the changes in the quantity and character of the courses being offered at the school level.
- Interviews and document reviews with district staff to assess changes in practices from the system perspective and to document variability in local requirements that exceed the state standards.
- In-depth interviews with key state leaders who provided the recommendations for the new state bylaws. This historical retrospective is an effort to better understand the assumptions, values, and purposes of the new requirements.

Five comprehensive high schools were selected as sites for data collection. The five schools have been working with the Commission on Secondary Education since 1982 as field sites for observations and short term data collection efforts. The five high schools were chosen because they are diverse and represent the full range of high schools Maryland's students might attend during their school careers. The student populations from these schools come from urban, suburban and rural settings and reflect a mix of social and ethnic groups. The size of the student populations also varies markedly. In addition, the five sites represent the full range of economic wealth for the region and a diverse set of family socio-economic situations.

Maryland High School Field Sites*

1. Fast-Track High School. Student population about 1,000. Fast-Track High School is a suburban school. It has been recently reorganized and is recognized as having a strong academic program.

2. United Nations High School. Student population 1,500. United Nations High School is an urban school which has both a large minority and a large non-English speaking population. It also has a broad range of alternative programs.

3. Urban High School. Student population about 2,500. Urban High School is a large urban, comprehensive high school. It has both a large minority and a large ethnic population.

4. Middleclass High School. Student population about 1,400. Middleclass High School serves a large geographical area. In addition, a vocational-technical center, an elementary school, a middle school, and a special education center are all located in the complex.

5. Rural High School. Student population less than 500. Rural High School is a small rural school that offers a comprehensive program.

*Pseudonyms have been chosen for the five high schools.

The design for the complete study called for a baseline year of data collection in the fall of 1986 and then three additional data collection efforts in spring 1988, fall 1990, and fall 1991. Data presented in this paper focus on the transcript records and the interviews conducted at the five schools in the fall of 1986 and the spring of 1988.

Student Transcript Records

For the review of transcript records, the baseline data collection included a random sample of 50 students from each of the five field site high schools who completed high school under the old requirements. We selected those with complete transcript records across their four years of high school experience. These data have been used to develop portraits of the students' high school careers. The class of 1986 was chosen since they were the last class unaffected by the new requirements. We have also been building a similar portrait of course taking patterns for this year's and next year's graduating classes (classes of 1989 and 1990). Eventually, we will have complete records (all four years) for each class of approximately 100 students from each ethnic group in each school.

At this time, data are only available from the first two years of courses for the class of 1989. Therefore, comparisons of course taking patterns will be made with the freshman and sophomore records from the class of 1986 (the "control group" unaffected by the changes). For each course taken by each student four pieces of information were coded. Each course was first coded by subject with 15 subject codes being utilized (e.g. math, science, art, home economics). Second, the track or difficulty of the course was coded using five categories: advanced placement, honors, general, vocational, and special education.[1] The third code was the grade

received for the course, with an A=4, B=3, C=2, D=1, and F=0. The final coding corresponded to the credits received, using a Carnegie unit (five periods per week for one entire school year) as the common metric.

Student and Staff Interviews

The second major data collection effort solicited perceptions of, judgments about, and reactions to the new requirements from those most affected: school administrators, guidance counselors, department heads, teachers, and students. To date, structured interviews have been conducted with a sample from each role group during two separate site visits. The first occurred after the requirements had only recently been enacted (fall of 1986) and the second after many of its effects had begun to take hold (spring of 1988).[2] An open ended interview guide was used with questions focusing on the following topics: available information about the new requirements, effects on individual departments, staffing adjustments, influence on dropouts/minority populations, knowledge of the Certificate of Merit, and the effect of the Certificate of Merit on students. Each interviewer was given the latitude to probe where appropriate to gather additional detail. The five schools were visited for a two day period by a team of four researchers. The total number of interviews conducted by the researchers is summarized in Table 2.

Table 2 about here

To document local variation, we have focused on one theme among several that are emerging, that of academic rigor, and describe how it has played out in response to increased requirements both from the perspective of patterns in course taking and in the perceptions of key stakeholders. Quantitative data from the transcript analysis provide evidence of variation

across three main questions associated with academic rigor: Are students taking more courses? Are students taking more challenging courses? Are students taking more diverse courses? Qualitative data from interviews with staff and students in the two most contrasting sites document distinctly different perceptions regarding the value and purpose of the Certificate of Merit as a tool for increasing academic rigor.

Setting the Scene for Academic Rigor

As described above, in 1985 the State Board of Education mandated two state diplomas for graduation from high school: the regular high school diploma and an advanced diploma -- what has come to be called the Certificat of Merit. This advanced diploma required that students take more courses overall, that a certain number of these courses have "more rigorous content standards" (Maryland State Department of Education, 1983) and that students maintain a specific grade point average. The apparent intent of this new, more demanding diploma was to encourage students to undertake a more challenging program of study in high school and to have the advanced diploma acknowledge those accomplishments.

The specific stipulations of the advanced diploma were consistent with the tone of the overall recommendations of the Commission on Secondary Education with its strong emphasis on intellectual development and achievement. Volume I of those recommendations describes that the primary mission of the public high school is to "promote the intellectual growth of [the] students" (Maryland State Department of Education. 1983). The specific set of requirements finally enacted for the Certificate of Merit express this strong academic emphasis:

- 12 of 20 credits in "advanced" courses,
- 2 credits of a foreign language,
- three credits of science instead of two, and
- grade point average of 2.6.

In an effort to assure local control over the content and rigor of the curriculum, the Commission recommended that the local district retain authority to determine what would constitute "advanced" courses in each department. Our initial analyses suggest that considerable variation exists between the five high schools in what constitutes a "merit" course, the procedures for identifying those courses, and the criteria for inclusion and exclusion of both courses and departments from the "merit pool".

When the additional requirements to earn the Certificate of Merit are overlaid on the regular high school diploma requirements, the resulting program of studies appears to leave little room for electives or vocationally-oriented courses. Nevertheless, the Commission recommendations explicitly specified that the advanced diploma be open to all students, that all students be encouraged to pursue it, and that all departments identify and offer courses that would satisfy the "12 out of 20" requirement. Thus, not only English, mathematics, science, foreign languages, and the social science departments would identify and offer advanced courses; business education and other vocationally-oriented departments (such as mechanical drawing, auto mechanics, and machine shop) would also offer courses which would be "the last three credits of a state-approved program and involve the application of mathematics or science concepts beyond the general level" (Maryland State Department of Education, 1983: 20). Our initial data analyses suggest that vocationally-oriented departments were largely unaware of this feature of the advanced diploma and, if aware, were hard-pressed to

find courses that met emergent standards of rigor.

Course Taking Patterns as a Response to Increased Academic Rigor

While the most obvious way to impact the quality of learning is to strengthen the content of courses, that is generally acknowledged as being beyond the reach of state policy. Rather, much of the state policy initiative has tried to address that issue indirectly by tightening course requirements. Maryland, like most other states, has responded by altering the course requirements. In this section we will review the course taking patterns of students before and after the requirements went into effect as a way of documenting variability of response to these new requirements. Individual student course taking patterns will be summarized across four of the five high schools in the sample.[3] Three major questions that address the issue of academic rigor form the basis for this data comparison:

- Are students taking more courses?
- Are students taking more challenging courses?
- Are students taking more diverse kinds of courses?

More Courses

To assess whether students were taking more courses, we calculated the number of Carnegie units earned and compared the sophomore and junior records of the class of 1986 (pre-graduation requirements) with the sophomore and junior records of the class of 1989 (post-graduation requirements). These results are summarized in Table 3. It should be noted that the number of credits required for graduation was not increased in the new state bylaw, but many staff we interviewed felt that the new requirements would indirectly impact the number of credits earned because students would be taking a regular course load in addition to any new courses in order to meet the new requirements.

Table 3 about here

A shift in the number of credits earned can be documented for all four schools. In three of the four schools the shift was in the hypothesized direction, with students earning more credits. The largest average increase, 0.7 credits, occurred at Fast-Track High School. The one decline in credits (0.9) was noted for students at Rural High School. While the hypothesized reason for the increase in three schools seems plausible, there is no obvious explanation for the decrease in credits earned at Rural High School. The data do indicate considerable variation in response across the four schools.

More Challenging Courses

To address the question of whether students were enrolling in more academically challenging courses, we compared both the number and proportion of advanced credits earned. Table 4 summarizes those findings. Advanced credits were defined as any courses eligible for the Certificate of Merit4. Since the pattern of courses offered has not changed dramatically for the classes of 1986 and 1989, we were able to code the courses for the class of 1986 even though the Certificate of Merit was not an option for them.

Table 4 about here

Table 4 summarizes striking variability in local response to the question of whether students are taking more challenging courses. Students at Fast-Track, Middleclass, and United Nations High Schools are earning more advanced credits after the new requirements took effect. However, students at Fast-Track earned an average of two more advanced credits than students a and United Nations. Students at Rural High School

earned fewer advanced credits after the new requirements were put into effect than they did before its implementation. The same variation exists in the proportion of advanced credits earned in each school. There was a 36 percent increase in the proportion of advanced credits earned by students at Fast-Track, while the increase was approximately 20 percent for Middleclass students and ten percent for United Nations students. Rural students earned fewer credits as a proportion of the total number of credits taken after the graduation requirements were instituted than they did before. While students in three of the four schools are taking more challenging courses as a result of the new state graduation requirements, there is evidence once again of the variability at the local level with regard to the degree of impact of the new requirements.

More Diverse Courses

The final issue of academic rigor, the diversity of students' courses of study, is addressed in Table 5. The new graduation requirements were designed specifically to address this issue of breadth. To encourage students to explore a range of curricular areas, the requirements mandated at least one course in both the practical and fine arts. To test whether students were enrolling in a wider range of courses, two separate operational measures were computed. We coded each course taken by content areas (with 15 possible codes). As a broad measure, we calculated the average number of different content areas for which students received credit. More specifically, we also calculated the percentage of students who had received credits for at least one fine arts credit since that is a subject area where policymakers felt too many students were not enrolling[5].

Table 5 about here

The results from the broad measure suggest very little movement in terms of the range of courses selected. There was no change at Fast-Track High School, a slight increase at Middleclass and small declines at United Nations and Rural High Schools. Overall, there was very little change after implementation of the new requirements using this measure. The results are different when the measure becomes more focused. When looking at just the fine arts credits, the data reveal increased enrollments across all four high schools. However, these changes vary markedly from only three percent more United Nations High School students earning a fine arts credit to a high of 22 percent more students earning credit at Rural High School. This latter figure represents a 39 percent increase after the introduction of the revised graduation requirements. Clearly, course choices are changing in different ways at the four high schools.

The student course taking patterns as examined in these three tables suggest a noticeable variability in response to the new graduation requirements. While these data are not yet conclusive, they do lead us to challenge assumptions about the uniformity of response to state mandated reforms. This variability in response is also documented in the interview data, as illustrated in the next section of the paper.

Local Staff Reactions to Increased Academic Rigor

We have chosen to illustrate the variation in local response to the pressure for more academic rigor in the curriculum by describing the response from the perspective of students, teachers, counselors and administrators in the two high schools with the most divergent perspectives, Urban High School and Fast-Track High School. This section summarizes the perceptions of these stakeholders as documented through two rounds of interviews conducted in the fall of 1986 and the spring of 1988.

As it evolved, much of the first round of qualitative data collection (fall of 1986) focused on learning about the variation among the five high schools and among departments within those schools in regards both facultys' and students' knowledge about advanced courses that would satisfy the Certificate of Merit requirements. In suburban Fast-Track High School, teachers had been well apprised of the changes which, in fact, demanded few alterations in the established curriculum. Since most of their students were college-bound (or hoped they would be college bound), the Certificate of Merit was barely a ripple in their daily lives. All students interviewed knew of the Certificate and many (some with consequent F's on their report cards) were taking merit courses in the hopes that they would earn the advanced diploma.

At the other extreme was Urban High School: the first year of implementation found teachers hardly aware of the advanced diploma option and somewhat embarrassed because they felt they should know more. Many attributed this to their student population, few of whom would attend college. Thus, the advanced diploma was construed as being for the college preparatory student only. One counselor commented, "We don't offer the courses, we don't have the teachers to teach them, and we don't have the students who could pass them." The students we spoke with were largely unaware of new requirements and uninterested in pursuing an advanced diploma.

By the second round of site visits to the high schools, administrators, teachers, counselors, and students all seemed more comfortable with the new requirements and more knowledgeable about them (spring 1988). Contrasts among the high schools in perceptions about the value and purpose of the advanced diploma, however, had become even more starkly defined. The

remainder of this section of the paper, then, describes these two extremes of variation in local definitions of the advanced diploma.

Urban High School

Set in a major urban metropolitan area, Urban High School is characterized by many of the difficulties besieging large, urban high schools: high drop-out rates, low attendance patterns, a student population that has had the "best and the brightest" creamed off to attend high-powered magnet schools, teen-age pregnancy, drugs and alcohol, and an aging faculty. When confronted with tougher, less flexible graduation requirements which stipulated an advanced diploma option that had to be available to all students, the faculty, administrators, counselors, and students in this school sealed off the reform initiatives by buffering themselves from significant knowledge of the changes and by denying that the reforms were appropriate for their particular local circumstances.

Buffers. As described above, during the first year of implementation (see Rossman, Wilson, D'Amico & Fernandez, 1987, for a full description), the staff (administrators, faculty, and counselors) at Urban were largely unaware of the new requirements for the regular diploma much less for the advanced diploma. Students could not report accurately the new requirements and appeared to be relatively unconcerned about them.

While there was overall more knowledge and more accurate knowledge apparent during the second site visit, we still found pockets of ignorance. For example, two of the teachers interviewed could not report which courses in their respective departments had been granted Certificate of Merit status; others were vague in their responses. One of the building administrators we talked with reported that "staff are not interested in it. I am surprised by how much they operate in isolation."

Some of the lack of knowledge and/or interest was attributed to the Certificate of Merit's presumed invisibility; that is, some teachers and staff felt that the central office administrators had not aggressively informed them of the new requirements. The building administrator quoted above noted that the advanced diploma "hasn't done much yet. It hasn't been promoted enough." Echoing this response was a guidance counselor who also commented on the lack of visibility of the advanced option: "It hasn't gotten the same publicity as the functional tests [the state minimum competence exams]. It's not emphasized enough at any level." Two department heads contributed similar thoughts, one remarking that it hadn't "been played up enough in papers or the schools" and the other that it had not been "publicized that much. Students don't know much about it." Of the fifteen students we interviewed during the second round of data collection, two who took career-oriented programs of study lamented their lack of information about the advanced diploma. One commented that "It's too late now. If I'd known about it before now. . . I just learned a little bit about it this year. The other felt that "it's kind of late for me. No one told me about it but I didn't ask nobody (sic)."

In contrast with the vocational students, the college preparatory students knew about the diploma's specific requirements (a few rattled them off with ease) but remained largely unaware that the Certificate of Merit should be available to students in any of the schools' major tracks. After listing the specific requirements for the advanced diploma, several noted that it was just for the college bound. One suggested that the diploma "shows that you've taken 'academic classes';" another that "you stay with college prep courses; the people in college prep are taking CM [Certificate of Merit] courses." One student felt that the advanced diploma was for

those students who want to "be doctors, go to college, feel education is important." Of the fifteen interviewed, only one remarked that "you have to take certain advanced classes -- mainly college prep but also in other classes like Math IV and **some vocational classes**" (emphasis added). According to the legislation, however, students should have been able to locate and enroll in merit classes in all departments whether academic or not.

Denial of appropriateness. Administrative staff, teachers, and counselors at Urban tended to deny the appropriateness of the Certificate of Merit for many of their students. One counselor noted that "a lot of kids don't want those difficult classes" while a department head described how the advanced diploma had "affected some number, not that many. We don't have that many motivated students. If they take a course and are happy, that's as far as it goes." Echoing these sentiments was another department head who felt that "most kids aren't motivated to go for it."

Many staff and teachers felt that students who were already enrolled in college preparatory courses would earn the advanced diploma but that its effects would be minimal. Trying to assess the impact of the advanced option on students, a department head felt that it had not had very much effect and that "kids who'll take academics would take it anyway." Another noted that "I would think that the kids who would have taken it are taking it -- it's not a great attraction." Yet another told us how they have no honors program at Urban so the only ones interested in the advanced diploma would be the college prep students. Reflecting many of these same ideas was a central office administrator we interviewed who felt that the advanced diploma was "a recognition that you have achieved beyond the minimum. For the college prep student, it will make very little difference."

Teachers felt that the advanced diploma could provide some additional challenge for students but that Urban had so few motivated students that its effects were minimal. One academic teacher remarked that "the CM [Certificate of Merit] has little impact at Urban. Kids just want diplomas. Extra merit is not an incentive." A member of the math department described how the school only had "three kids at the Calculus level. A few students benefit from the Certificate. Kids here only strive for a 70 to pass -- that's all they want."

Some educators at Urban seemed to believe that the advanced diploma was of little or no consequence: that it was little more than a symbolic gesture to confer status on those who would receive it anyway. Yet others believed that the stricter curriculum demands of the certificate would significantly alter pedagogy and the content of the curriculum. And some were ambivalent, like the central office administrator who remarked that "I have mixed feelings. It's good to have something for students to strive for. To add some more icing? some more frosting? I'm not sure." Another highly-placed administrator said that advanced courses to satisfy the Certificate of Merit requirements were "what used to be regular classes and better. I guess you're saying you're putting a little star next to regular classes. Certificate of Merit courses have their place; I'd just like to see the whole curriculum enriched."

The comments above suggest that the prevailing ethos at Urban was to hold relatively low expectations for students. The teachers and staff we interviewed described students who just wanted to get by with the minimum and who were not motivated to be challenged. We must also note a prevalent misunderstanding of the purposes of the advanced diploma -- that it was reserved for the college preparatory students alone and that students in

vocationally-oriented classes could not meet the requirements.

Fast-Track High School

The picture we received from the suburban, pressured high school was very different from that of Urban. Faculty, students, counselors all knew about the advanced diploma and were pushing either themselves or students to try to earn it. The overall impression we had at Fast-Track was of a pressure-cooker where parents applied intense pressure on students to succeed, and students had largely internalized those demands. Knowledge about the Certificate of Merit was wide-spread and accurate to the point that many students we interviewed felt they were second-class citizens if they were not pursuing the advanced diploma. By the second round of site visits, we could assert that the prevailing responses to the Certificate of Merit at Fast-Track were for teachers to see minimal effects (but for very different reasons than at Urban) and for students to perceive it as further evidence of the status differentials among the "smart" students and the "not-so-smart" ones.

Minimal disruption. The teachers and department heads at Fast-Track, as noted above, were well informed about the up-coming changes and could easily slide the new requirements over existing courses. This was especially true with courses to meet the advanced diploma requirements. Because of Fast-Track's college-bound emphasis, each department already had several courses that could easily meet the stipulations for the Certificate of Merit. In fact, most departments had a highly differentiated set of course offerings; these, however, were at ever-increasing degrees of difficulty. Thus, it was not unusual for a department to offer a couple of sections of, for example, English III, a couple more of English III honors, and one of English III for gifted and talented students. Marking sections

at the honors level and above as merit hardly caused a ripple in daily operations.

Expressing this ease was a department head who noted that "the Certificate of Merit has created no problems at all. We had advanced courses all in place, much more so than in some other areas." Another described how "I didn't really have to do anything or change anything [in the curriculum]" while another felt that "I'm not sure it [the Certificate of Merit] does what it's supposed to do. CM courses are denoted by title or whim; there's no real evaluation of whether they require higher order cognitive processes." Somewhat bitterly, this person asserted that "the CM diploma and a dime will get you a cup of coffee when you leave here."

Differences in status. Students seemed acutely aware of the symbolic value of the advanced diploma as a means to further differentiate among the college-bound and the work-bound. Categorizing students into one or the other of these dichotomies was commonplace: our interviews with teachers, department heads, and students all revealed a we/them, either/or kind of thinking. Thus, a student was in one camp or the other, and the Certificate of Merit created a label for the college-bound group that obviously separated the two groups. One veteran teacher expressed this typology: "Based on my limited information, we have two types of students: those who are academically oriented and are talented at writing, and those who are vocationally oriented and are talented at speaking. The academic students do just fine and are challenged; the vocationally-oriented students will continue to be harmed." Clearly the group with the most attention and status was the college bound.

One response to this was for students who were not strong academically to opt into Certificate of Merit classes and flounder. Several teachers

commented on this, one remarking at length that "some students are unrealistic. There's lots of peer pressure to take CM at this school. The general aura here is to take more difficult courses. CM status is important, especially with our community where education is a ticket to success. But the down side is that students have false expectations for their performance." Another described how "The bad thing about CM is that any kid who thinks he wants to go on to college, so he takes CM. There are more who flunk, more pressure on teachers to pass more -- leads to lowering standards." And yet another: "There are some students who might not be there but parents push them. That's their choice." One teacher of 23 years commented on the status value of the advanced diploma to parents: "Parents do lots of encouragement; kids are more challenged by parents when in CM courses. Not all are, of course. Some are inappropriately placed in CM courses. Parents have challenged them to do it. Some try as a result; others give up because of parental pressure."

Students in vocationally-oriented classes spoke somewhat wistfully about the advantages of the advanced diploma if they had been able to take merit courses to earn it. One boy spoke about the demands of the courses: "I was thinking about it. It would look good in my job applications and in the service -- get a higher rank. I'm gonna try." A girl specializing in auto mechanics described how she had "thought about it, but I'm not interested. Maybe it gives some academically inclined students a better chance for recognition." And yet another young woman felt that the "CM didn't interest me. I had no need for a foreign language. I took World History CM because the school only has CM in it. Busted my butt to get a C." Other vocational students spoke about how they had been interested but had been unable to maintain the pace of the courses labeled CM: "I was,

but not now. I started it last year and classes moved quicker, and with sports I had trouble keeping up."

In this high school where 81 percent of the graduates go on to some form of post-secondary or higher education, the pressures on students to achieve are enormous. Several of the students we interviewed were identified as Gifted and Talented students. These students seemed to feel that they were the elite in the school; the advanced diploma was almost anathema to them. One spoke about the confusion: "It's confusing to figure out which is which: GTs or CM. The question at my level is whether to take GT or CM, not CM or General. Teachers take CM seriously." Another remarked that "our counselors always make out that the GT program is one step above the CM program. I'm sure it is. Other classes seem to be not so tough. GT courses count as CM courses so all my courses will qualify." In this rarefied world of the super-smart student, distinctions between CM and their more advanced courses were somewhat carefully drawn.

Some faculty at Fast-Track identified the potential backlash on students less able or willing to compete with the super-bright. A department head remarked that he felt that the "CM is totally unnecessary. Generally, students who were supposed to take CM would take those courses anyway. I do not see it as an encouragement to the better student. I do see it as a complete detriment to the average and below average student." He went on to describe how parents will pressure students: "those courses [CM] have status within the county and in school: parents will push their kids to take them." Deeply disturbed by the excessive pressure on students, he anguished over the failures: "What kind of success are we showing those kids when they take them [CM courses] and fail? That's terrible emotionally." And further, "Some students are taking CM courses who

shouldn't be. We've set up a system where the only thing that's valued is the 'academic' and nothing else. So all the kids feel they have to take those classes." Concerned about the overall effects on students, this department head noted that the impact of the Certificate of Merit will be to "make the 'regular' diploma a second-class diploma".

Implications of the Study

This paper has described work in progress: a longitudinal, multi-dimensional study of the implementation of high school reform. Seemingly simple and straight-forward on the surface, changes in the graduation requirements are subtly affecting the organizational, technical, and political functioning of the five high schools studied. These adjustments, shifts, and accommodations are occurring slowly as an entire cohort of students passes through four years of high school experiences. And the exact nature of those adjustments and accommodations to mandated change reflect the subtle, complex, and idiosyncratic culture of each of the five high schools.

Thus, rather than a tale of unitary response patterns to an apparently simple intervention, this research is documenting profound differences in how local schools make sense of state-initiated change efforts. The five schools we are studying frame the new graduation requirements differently: people we interviewed construe the changes as having unique meaning for their particular school, its faculty, its students, its organizational structures, its departmental resources and curricula. Variations in curriculum adjustments, student advising, faculty deployment, and structures such as periods per day are becoming increasingly apparent.

And this, we assert, is to be expected. Much of the research we have conducted has focused on capturing variations in local responses to

externally-mandated change (Corbett, Dawson, & Firestone, 1984; Rossman, Corbett, & Firestone, 1988). Timar and Kirp (1989: 507) suggest that this is a new perspective: "Local responses to the call for school improvement are highly varied because of the diverse political and social cultures in which they occur". While clearly not something new, studies that provide detailed descriptions of those variations in responses to change efforts may help promote policymakers' awareness that attention to local culture and uniqueness is crucial if, as Timar and Kirp suggest, the next dimension of state-initiated school reform efforts is to focus on the organizational functioning of each school. While the authors are disturbingly silent on exactly what that strategic focus on the school-as-an-organization would look like, they do suggest a need to attend to differences.

One aspect to consider is the differing conceptualizations of state activity. In the quote above, Timar and Kirp call such activity "improvement". Just what constitutes "improvement", however, depends on local culture and context (Rossman, Corbett, & Firestone, 1988). That is, what is improvement to one school, or a significant cultural group in that school, may, in another school, be viewed as excessive tampering from far-distant sources with few legitimate claims to shape the daily activities of the school. The research discussed here suggests that, in part, local responses vary considerably because it is not clear to those who spend their daily lives in local schools that state-initiated efforts <u>are</u> "improvement". To many, they are misguided and meddlesome bureaucratic and political responses to forces well beyond the interests and concerns of the school.

This study of policy implementation from the smallest unit up has encouraged us to become increasingly impressed with the power of school cultures to shape, alter, buffer, and ceremonialize unwanted or trivial

change. Consistent with the characteristics of "institutionalized organizations" (Meyer & Rowan, 1977), two of the schools discussed here seem to have protected the sanctity of the teaching-learning process (i.e., the classroom) from excessive intrusion. Urban buffered its technical core from close inspection by deflecting and encapsulating knowledge about the new requirements during the first year of implementation. By denying the appropriateness of the advanced diploma for their students, faculty and staff also protected the technical core from intrusion. At Fast-Track, the new requirements seem to have been ceremonialized: changes were reported as barely causing a ripple in the curriculum or the daily operations of the school.

This suggests that feisty, challenging responses to state-initiated mandates are alive and well in the local schools and that, perhaps decisions about what constitutes "improvement" are best reserved for those who know and understand the local context best. Timar and Kirp (1989) suggest that the school as an institution be the target for reform, that district-level authority be decentralized to the school, that reformers focus on the complex mix of values, beliefs, and norms that characterize highly successful schools, and that a clear delineation of authority among legitimate stakeholders be demarcated. Of these, the first three hold some promise for vesting responsibility and accountability for the conduct of educational experiences with those closest to the learner. In contrast, a tightly demarcated system of authority constrains behavior rather than liberating it, and is inconsistent with vesting local responsibility at the school level.

As we continue to document the implementation of Maryland's new high school graduation requirements, local variation will likely become even more

significant. The discourse about education today contains slogans about "restructuring" and "empowerment". National attention is shifting from the curriculum (as expressed in, for example, high school graduation requirements reform) to the relationships among key actors: teachers and administrators. Should this promote analysis and discussion about the school as a complex organization with multiple, competing and often paradoxical elements, then perhaps our collective notions about change and reform will become more sophisticated. Perhaps the state-level policymakers' initiatives will also become more sophisticated -- more sensitive to local context and school culture.

TABLE 1: COMPARISON OF NEW AND OLD MARYLAND HIGH SCHOOL GRADUATION REQUIREMENTS

1. MARYLAND HIGH SCHOOL DIPLOMA

NEW	OLD	DIFFERENCE
Credit Requirements:		
English - 4 credits	English - 4 credits	Same
Science - 2 credits	Science - 2 credits	Same
Fine Arts - 1 credit	No credit specified	1 Fine Arts credit added.
Mathematics - 3 credits	Mathematics - 2 credits	1 Mathematics credit added.
Social Studies - 3 credits (1 U.S. History and 2 Unspecified)	Social Studies - 3 credits (1 U.S. History; 1 Contemporary Issues; 1 Unspecified)	Only U.S. History specified.
Physical Education - 1 credit	Physical Education - 1 credit OR 2 years physical activity	Physical activity option eliminated.
Computer studies or Home Economics or Industrial Arts or Technology Education or Vocational Education - 1 credit	No credit specified	1 credit in Computer Studies or Home Economics or Industrial Arts or Technology Education or Vocational Education added.
Electives - 5 credits	Electives - 8 credits	3 required credits added, thus reducing the number of elective credits.
Total Required Credits: 20 credits	20 credits	Same total credits, but 3 additional specified credits.
Senior Year Credits: 4 credits earned after the 11th grade	No specified credit requirement after 11th grade	Seniors must earn at least four credits during their senior year.
State Competency Tests: Functional Reading, Functional Mathematics, Citizenship Skills, Writing	Functional Reading	All four tests will be phased in for the class of 1989.

2. MARYLAND CERTIFICATES

NEW	OLD	DIFFERENCE
Certificate of Merit (In addition to the diploma) Effective: Class of 1989 Certificate for completion of a more challenging education program. Credit Requirements: English - 4 credits Science - 3 credits Fine Arts - 1 credit Mathematics - 3 credits Social Studies - 3 credits (1 U.S. History) Physical Education - 1 credit Computer Studies or Home Economics or Industrial Arts or Technology Education or Vocational Education - 1 credit Foreign Language (Level II or above) - 1 credit Electives - 3 credits Advanced Courses: 12 credits in advanced courses from the above listing Grade Point Average: at least 2.6 (on a 4.0 scale)	No provision	Provision is made for a certificate in addition to the diploma for graduates who meet certificate stipulations in the graduation requirements bylaw.

NEW	OLD	DIFFERENCE
Maryland High School Certificate (In lieu of the diploma) Effective: Class of 1986 Certificate for completion of a special education program for students who have been enrolled for at least four years beyond grade 8.	No provision	Provision is made for a certificate in lieu of the diploma for special education students who cannot meet the requirements for the diploma but meet the specified requirements on theIEP and in the graduation requirements bylaw.

3. OTHER PROVISIONS FOR EARNING CREDIT TOWARD GRADUATION

NEW	OLD	DIFFERENCE
Summer School	Summer School	Same
Evening School	Evening School	Same
Correspondence Courses	Correspondence Courses	Same
Tutoring	Tutoring	Same
Work Study Programs	Work Study Programs	Same
College Courses	College Courses	Same
	Examination	Credit by examination eliminated.

4. ALTERNATIVES TO FOUR-YEAR ENROLLMENT REQUIREMENT IN A PUBLIC HIGH SCHOOL

NEW	OLD	DIFFERENCE
Early College Admission Program	Early College Admission Program	Same
Early Admission to Vocational, Technical, or Other Post-Secondary School	Early Admission to Vocational, Technical, or Other Post Secondary School	Same
	Accelerated Twenty-Credit Program	Graduation in less than than four years eliminated.
	Job Entry Training Program	Job entry training eliminated as an alternative to four-year enrollment.
General Educational Development Testing Program	General Educational Development Testing Program	Same
Maryland Adult External High School Diploma Program	No provision	Maryland Adult External High School Diploma Program is referenced as an alternative approach to earning a diploma in the graduation requirements bylaw.

Table 2: Samples for Interviews in the Five Field Site High Schools

	students		teachers		counselors		bldg adm		dist adm	
	'86	'88	'86	'88	'86	'88	'86	'88	'86	'88
Rural	12	18	26	12	1	1	2	1	-	2
Fast-Track	12	17	11	15	3	3	3	3	-	3
Middleclass	12	19	27	17	2	4	4	2	-	4
Urban	9	15	14	14	3	5	4	2	-	3
United Nations	14	16	17	16	3	7	3	2	-	4

Table 3: Mean Number of Credits Earned by School for Juniors*, Prior to and After the New Graduation Requirements

Credits Earned	Fast-Track	Middleclass	United Nations	Rural
Pre	11.7	11.5	12.8	13.2
Post	12.4	11.9	13.4	12.3

*The data represent course taking patterns for the first two years of a high school career (i.e. freshman and sophomore records). The data are incomplete because there has yet to be a complete cohort of students to graduate and be affected by the new requirements.

Table 4: Mean Number of Advanced Credits Earned and Mean Proportion of Advanced Credits Earned by School for Juniors*, Prior to and After the New Graduation Requirements

Advanced Credits Earned	Fast-Track	Middleclass	United Nations	Rural
Pre	2.7	2.2	3.0	4.4
Post	7.2	4.8	5.1	3.4

Proportion of Advanced Credits Earned	Fast-Track	Middleclass	United Nations	Rural
Pre	.22	.19	.23	.33
Post	.58	.40	.34	.26

*The data represent course taking patterns for the first two years of a high school career (i.e. freshman and sophomore records). The data are incomplete because there has yet to be a complete cohort of students to graduate and be affected by the new requirements.

Table 5: Range of Courses Passed and Proportion of Students Taking One Fine Arts Course by School for Juniors*, Prior to and after the New Graduation Requirements

Range of Courses Passed	Fast-Track	Middleclass	United Nations	Rural
Pre	5.8	6.5	6.1	6.2
Post	5.8	6.7	6.0	5.9

Proportion of Students Taking One Fine Arts Course	Fast-Track	Middleclass	United Nations	Rural
Pre	55	51	69	57
Post	64	61	72	79

*The data represent course taking patterns for the first two years of a high school career (i.e. freshman and sophomore records). The data are incomplete because there has yet to be a complete cohort of students to graduate and be affected by the new requirements.

Endnotes

1. All courses classified as advanced placement or honors were eligible for the Certificate of Merit credits.

2. Although students will not be denied diplomas before June 1989 for failing to meet the new requirements, most of the course changes have been in place in the schools for the past several years.

3. Technical difficulties in transferring computer tape files from the central administrative offices at Urban High School to our computer system in a timely fashion has meant that this school had to be eliminated from these quantitative analyses.

4. Each district submits to the state a list of courses they want to include as Certificate of Merit eligible. Those lists were consulted to help us code courses.

5. Earlier calculations from the class of 1986 (Rossman, Wilson, D'Amico, & Fernandez, 1987) indicated that the practical arts requirement was so broadly defined that everyone had met it before it was implemented. Consequently, we focused only on the fine arts requirement.

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